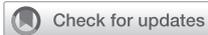




Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.



Key Opportunities for the COVID-19 Response to Create a Path to Sustainable Telemedicine Services

Scott Breitinger, MD; Melanie T. Gentry, MD; and Donald M. Hilty, MD, MBA



From the Department of Psychiatry and Psychology (S.B., M.T.G.), Mayo Clinic, Rochester, MN; Department of Psychiatry, Weill Cornell Medicine, New York, NY (S.B.); and the VA Northern California Health Care and Department of Psychiatry, UC Davis School of Medicine, Sacramento, CA (D.M.H.).

“There have been as many plagues as wars in history; yet always plagues and wars take people equally by surprise,” wrote Albert Camus in his 1947 novel, *The Plague*.¹ The current coronavirus disease 2019 (COVID-19) pandemic is sweeping through every continent, leaving health care systems scrambling to screen, diagnose, and treat COVID-19 patients — and to deal with the public health repercussions secondary to social distancing. Worsening morbidity and mortality related to behavioral health and substance abuse are ubiquitous sequelae to epidemics and disasters, and COVID-19 has unsurprisingly demonstrated the same pattern.²

In March 2020, federal and state agencies implemented rapid regulatory changes to expand and enhance the use of telehealth for those affected by COVID-19. This included: temporary easing of telehealth restrictions for Medicare beneficiaries; reimbursing providers at the same rate as in-person consultations for video with acceptable reimbursement mechanisms for telephone and text communications as well; many states providing waivers for out-of-state practitioners; and temporary easing of controlled substance prescribing limitations as defined by the Ryan Haight Online Pharmacy Consumer Protection Act.

There is a deep resonance with Camus’ observation regarding the predictability with which pandemics take civilizations by surprise. The COVID-19 pandemic has exposed and amplified systemic deficits in the health care system’s ability to manage the secondary health effects of psychosocial isolation, economic strain, and cultural turmoil. Obsolete regulations of telemedicine that have been

temporarily modified demonstrate opportunities for policymakers to transform temporary successes into permanent adaptations.

During the COVID-19 era, telemedicine has been an essential method to ensure the continuation of health care services while allowing for social distancing and reducing rates of COVID-19 transmission. Studies show rates of telemedicine increasing upwards of six- to seven-fold during the COVID-19 era.³ The expansion of video-based care has been an effective means of seeking care for many patients.^{3,4} However, many other patients have been left behind in this rapid switch to video-based care — potentially worsening health care inequities — particularly for those without access to technology. Some systems in the United States (eg, Mayo Clinic and the Veterans Health Administration) have patients go to a care facility within the system to use computers for video services, whereas other countries have directed patients to use computers in malls or libraries, which this is less common in the United States. This disparity in access has made telephone visits an equally important component of the recent telehealth expansion.⁴

Telemedicine is an important tool to expand care delivery, although it may not be applicable in every health care setting or clinical scenario. Telemedicine has been shown to be effective with similar clinical outcomes and high levels of patient satisfaction across diverse areas of health care including psychiatry, cardiac rehabilitation, and orthopedics.⁵ Some aspects of care may require help from in-person clinicians for parts of the physical examination or a medical intervention to effectively evaluate and manage patients, particularly for urgent or

emergent situations.⁵ Hence, telemedicine is not a replacement for in-person care and providers should anticipate clinical needs to ensure that the use of telemedicine does not reduce the quality of care.

Consumer demand for telehealth services has long outpaced the implementation of such programs within health care organizations. The COVID-19 pandemic has led to rapidly increasing demand for such services. With the increased exposure and comfort with virtual health care among patients and providers, the demand for expanded access to telehealth services is not likely to wane once the pandemic has passed. Importantly, while routine and low-intensity telemedicine services can keep financial revenue in rural communities,⁵ theoretically, revenue could be redirected from already struggling rural hospitals to larger health care organizations better equipped to make this rapid transition to digital care. In turn, this could reduce the financial sustainability of rural clinical facilities that also provide acute medical care. For this reason, precaution and foresight are essential in both policy and operational planning to ensure financial sustainability of complex care for underserved and rural populations. If telemedicine is to continue as a critical component of health care delivery, the following regulatory hurdles must be addressed.

PRESCRIBING OF CONTROLLED SUBSTANCES

The Ryan Haight Online Pharmacy Consumer Protection Act has been a longtime barrier to the widespread implementation of tele-mental health services due to its restriction on prescribing controlled medications without a face-to-face office visit.⁶ These restrictions were lifted by a federal emergency declaration in January 2020. The Ryan Haight Act was designed to combat inappropriate prescribing of controlled substances through Internet pharmacies in the late 1990s. There are valid concerns regarding controlled medication prescribing, especially in the context of the current opioid epidemic. However, it provides undue restrictions today on potentially effective

medications such as anticonvulsants, stimulants, and benzodiazepines that can be safe and effective when prescribed appropriately via telemedicine encounters. To improve the regulatory function of The Ryan Haight Act, a few issues are central: (1) The Special Registration for Telemedicine Clarification Act was introduced in Congress in 2018 to allow for increased prescribing via telemedicine without the requirement for an in-person examination by the prescriber if an examination is available by a local clinician. This or similar legislation should be supported in becoming law. And (2), rather than restrictions on telemedicine prescribing, policy changes should focus on implementation of a federal database, where currently only state-based Prescription Drug Monitoring Program databases exist, to make it easier to track the prescribing of controlled substances nationwide.

REIMBURSEMENT FOR TELEMEDICINE SERVICES

Telemedicine was introduced as a covered service under the Medicare program in 1997, but maintained significant limitations based on site of service provision and geography.⁷ Reimbursement has generally been limited to patients being present at rural originating facilities. These restrictions significantly hamper the ability of health systems to develop and sustain telemedicine interventions for older adults and those with disabilities.⁸

Loosening restrictions on telehealth reimbursement under COVID-19 emergency orders has resulted in a dramatic expansion of virtual care, which has provided crucial medical services to vulnerable patient populations during the COVID-19 pandemic. However, as these are temporary measures, it is unknown which, if any, of these waivers will remain in place after the emergent COVID-19 response period. Going forward, a few things are working and should be continued through the following measures: (1) New legislation governing the Centers for Medicare and Medicaid could extend temporary waivers to support telehealth including expanding the types of covered providers, types of covered services, and importantly, removing restrictions on

patient and provider location for telehealth visits. And (2), state legislators can enact telehealth parity laws to ensure equivalent coverage and reimbursement for telehealth services.

STATE LICENSING

Before COVID-19, regulatory parameters for telemedicine care had required that the provider be licensed in the state where the patient is located at the time of service. State boards of medicine have been an important way to protect the health and safety of the state's population by ensuring standards of practice, training, and ethical behavior for physicians and other health care providers in their state. Temporarily suspending these licensing requirements during COVID-19 led to an unprecedented expansion of telehealth services across the United States. The current state licensing requirements have allowed the nation to more effectively deploy an already scarce and highly valuable health care workforce to patients in need across the United States in disease hotspots.

An adjustment of state medical licensing requirements — allowing providers from another state to practice via telemedicine — could help geographically broad health care systems in underserved rural America address regular demand for care, as well as increased demand by COVID-19. Ongoing flexibility would add capacity and agility to distribute the health care workforce for states, public health systems, and underserved communities. Underused care providers in other states could have a larger role in addressing the care burden where the COVID-19 incidence is high.

The state-based system creates an enormous administrative and cost burden for telemedicine providers, so states began to develop alternative approaches over the past several years. One is the Interstate Medical Licensure Compact, which provides a streamlined system for state medical boards to share information and expedite the process for obtaining state licensure. The compact currently includes 29 states and the District of Columbia. Unfortunately,

the compact still requires full compliance with all state-specific licensure requirements, such as continuing medical education and licensure renewal fees — a barrier for providers and health systems wishing to expand telemedicine options more broadly.

Going forward, in response to COVID-19: (1) Federal legislation could be used to redefine the “place of service.” Instead of the site of the *patient* arbitrarily defined as the virtual place of service, the site of the *clinician* redefined as the site of care delivery would alleviate the need for providers to have multiple state licenses to practice telemedicine. And (2), expansion of the Interstate Medical Licensure Compact to include all states/territories and provide for reduced requirements and fees for telemedicine only licensure. Stakeholders across the country must advocate for their individual states to adopt legislation to participate in this Compact to help make interstate telemedicine practice more ubiquitous.

CONCLUSION

The expansion of telehealth during the COVID-19 pandemic has allowed many providers and patients to experience better access to effective care. This is a unique opportunity to leverage this increased interest and demand for telehealth in creating permanent regulatory changes to improve the access to health care and to build resilience and capability into the health care system before the next unforeseen but inevitable public health crucible arrives. To maintain the progress made possible by this pandemic, some well-intended regulatory parameters of telehealth could be revised to permit greater freedom for patients, providers, health care systems, and states to connect patients' needs with effective health care.

Potential Competing Interests: The authors report no potential competing interests.

Correspondence: Address to Scott Breitingner, MD, 200 1st Street SW, Rochester, MN 55902 (Breitingner.scott@mayo.edu; Twitter: [@sbreitingnerMD](https://twitter.com/sbreitingnerMD)).

ORCID

Scott Breitingner:  <https://orcid.org/0000-0002-8660-212X>

REFERENCES

1. Camus A. *The Plague*. London, United Kingdom: Penguin; 2002.
2. Galea S, Merchant RM, Lurie N. The Mental Health Consequences of COVID-19 and Physical Distancing: The Need for Prevention and Early Intervention. *JAMA Intern Med*. 2020; 180(6):817-818.
3. Mann DM, Chen J, Chunara R, Testa PA, Nov O. COVID-19 transforms health care through telemedicine: evidence from the field. *J Am Med Inform Assoc*. 2020;27(7):1132-1135.
4. Crawford A, Serhal E. Digital health equity and COVID-19: the innovation curve cannot reinforce the social gradient of health. *J Med Internet Res*. 2020;22(6):e19361.
5. Hilty DM, Ferrer DC, Parish MB, Johnston B, Callahan EJ, Yellowlees PM. The effectiveness of telemental health: a 2013 review. *Telemed J E Health*. 2013;19(6):444-454.
6. Shore JH, Schneck CD, Mishkind MC. Telepsychiatry and the coronavirus disease 2019 pandemic—current and future outcomes of the rapid virtualization of psychiatric care. *JAMA Psychiatry*. 2020. <https://doi.org/10.1001/jamapsychiatry.2020.1643>.
7. Hollander JE, Sites FD. The transition from reimagining to recreating health care is now. *NEJM Catalyst Innov Care Deliv*. 2020. <https://doi.org/10.1056/CAT.20.0093>.
8. Gentry MT, Lapid MI, Rummans TA. Geriatric telepsychiatry: systematic review and policy considerations. *Am J Geriatr Psychiatry*. 2019;27(2):109-127.